Amendments to the Claims

The listing of claims will replace all prior versions, and listings of claims in the application.

1. (previously presented) A method for combining requests for bandwidth by a data provider for transmission of data over an asynchronous communication medium, comprising the steps of:

receiving bandwidth requests from one or more data providers, each bandwidth request having a data provider identifier, a priority identifier that identifies a type of data to be transmitted, and an amount of required bandwidth;

storing the bandwidth requests in a data structure so as to maintain an order in which the bandwidth requests were received;

scheduling the bandwidth requests in an order to be serviced based on the priority identifier and the order in which the bandwidth requests were received;

calculating a data burst bandwidth for each of the one or more data providers by combining the amount of required bandwidth specified in scheduled bandwidth requests having the same data provider identifier; and

granting said data burst bandwidths to respective data providers over the asynchronous communication medium.

2. (original) The method of claim 1, wherein said asynchronous communication medium is cable TV.

3. (original) The method of claim 1, wherein said asynchronous communication medium is wireless.

4. (original) The method of claim 1, wherein said asynchronous communication medium is satellite.

5. (original) The method of claim 1, wherein said asynchronous communication medium is the Internet.

6. (previously presented) The method of claim 1, wherein said order to be serviced is determined by servicing bandwidth requests having a higher priority identifier before bandwidth requests having a lower priority identifier, and servicing the bandwidth requests for each priority identifier according to the order in which the bandwidth requests were received.

7. (previously presented) The method of claim 1, wherein at least one data burst bandwidth is calculated by combining the amount of required bandwidth specified in scheduled bandwidth requests having different priority identifiers.

8. (original) The method of claim 1, wherein said data structure is comprised of one or more queues.

9. (previously presented) A method for combining requests for bandwidth by a data provider for transmission of data over an asynchronous communication medium, comprising the steps of:

receiving bandwidth requests from one or more data providers, each bandwidth request having a data provider identifier, a priority identifier, and an amount of required bandwidth;

calculating a data burst bandwidth by combining the amount of required bandwidth specified in bandwidth requests having the same data provider identifier and the same priority identifier; and

scheduling the granting of the data burst bandwidth to a data provider based on one or more quality of service parameters.

10. (original) The method of claim 9, wherein said quality of service parameters include efficiency of transmission and transfer delay tolerance.

11. (original) The method of claim 9, wherein said asynchronous communication medium is cable TV.

12. (original) The method of claim 9, wherein said asynchronous communication medium is wireless.

13. (original) The method of claim 9, wherein said asynchronous communication medium is satellite.

14. (original) The method of claim 9, wherein said asynchronous communication medium is the Internet.

15. (previously presented) The method of claim 9, wherein said scheduling the granting of the data burst bandwidth to a data provider is also based on at least one of the priority identifier and an order in which the bandwidth requests were received.

16. (canceled)

17. (previously presented) A system for combining requests for bandwidth by a data provider for transmission of data over an asynchronous communication medium, comprising:

a headend; and

a scheduler coupled to said headend,

wherein said scheduler receives bandwidth requests from one or more data providers, each bandwidth request having a data provider identifier, a priority identifier that identifies a type of data to be transmitted, and an amount of required bandwidth,

wherein said scheduler stores the bandwidth requests in a data structure so as to maintain an order in which the bandwidth requests were received,

wherein said scheduler schedules the bandwidth requests in an order to be serviced based on said priority identifier and said order in which the bandwidth requests were received, and

wherein said scheduler calculates a data burst bandwidth for each of said one or more data providers by combining the amount of required bandwidth specified in scheduled bandwidth requests having the same said data provider identifier, and

wherein said headend grants said data burst bandwidths to respective data providers over the asynchronous communication medium.

18. (original) The system of claim 17, wherein said asynchronous communication medium is cable TV.

19. (original) The system of claim 17, wherein said asynchronous communication medium is wireless.

20. (original) The system of claim 17, wherein said asynchronous communication medium is satellite.

21. (original) The system of claim 17, wherein said asynchronous communication medium is the Internet.

22. (previously presented) The system of claim 17, wherein said order to be serviced is determined by servicing bandwidth requests having a higher priority identifier before bandwidth requests having a lower priority identifier, and servicing the bandwidth requests for each priority identifier according to said order in which the bandwidth requests were received.

23. (previously presented) The system of claim 17, wherein at least one data burst bandwidth is calculated by combining the amount of required bandwidth specified in scheduled bandwidth requests having different priority identifiers.

24. (original) The system of claim 17, wherein said data structure is comprised of one or more queues.

25. (previously presented) A system for combining requests for bandwidth by a data provider for transmission of data over an asynchronous communication medium, comprising:

a headend; and

a scheduler coupled to said headend,

wherein said scheduler receives bandwidth requests from one or more data providers, each bandwidth request having a data provider identifier, a priority identifier, and an amount of required bandwidth,

wherein said scheduler calculates a data burst bandwidth by combining the amount of required bandwidth specified in bandwidth requests having the same data provider identifier and the same priority identifier,

wherein said scheduler schedules the granting of the data burst bandwidth to a data provider based on one or more quality of service parameters.

26. (original) The system of claim 25, wherein said quality of service parameters include efficiency of transmission and transfer delay tolerance.

27. (original) The system of claim 25, wherein said asynchronous communication medium is cable TV.

28. (original) The system of claim 25, wherein said asynchronous communication medium is wireless.

29. (original) The system of claim 25, wherein said asynchronous communication medium is satellite.

30. (original) The system of claim 25, wherein said asynchronous communication medium is the Internet.

31. (previously presented) The system of claim 25, wherein said scheduler also schedules the granting of the data burst bandwidth to a data provider based on at least one of the priority identifier and an order in which the bandwidth requests were received.

32-34. (canceled)